Map Unit Description (MN)

Wright County, Minnesota

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

7A--Hubbard loamy sand, 0 to 2 percent slopes

Hubbard

Extent: 95 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 20 in	loamy sand	rapid	1.61 to 2.41 in	5.1 to 7.3
Bw -- 20 to 32 in	loamy sand	rapid	0.35 to 0.83 in	5.1 to 7.3
BC,C -- 32 to 80 in	sand	rapid	1.44 to 3.36 in	5.6 to 7.8

7B--Hubbard loamy sand, 2 to 6 percent slopes

Hubbard

Extent: 90 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	loamy sand	rapid	1.45 to 2.17 in	5.1 to 7.3
Bw -- 18 to 23 in	loamy sand	rapid	0.14 to 0.33 in	5.1 to 7.3
BC,C -- 23 to 80 in	sand	rapid	1.71 to 4.00 in	5.6 to 7.8

7C--Hubbard loamy sand, 6 to 12 percent slopes

Hubbard

Extent: 80 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 12 in	loamy sand	rapid	0.94 to 1.42 in	5.1 to 7.3
Bw -- 12 to 33 in	coarse sand	rapid	0.64 to 1.49 in	5.1 to 7.3
C -- 33 to 80 in	coarse sand	rapid	1.41 to 3.28 in	5.6 to 7.8

8B--Sparta loamy sand, 1 to 6 percent slopes

Sparta

Extent: 95 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 1 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .17
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 16 in	loamy sand	moderately rapid	1.45 to 1.94 in	5.1 to 7.3
Bw -- 16 to 29 in	loamy sand	rapid	0.65 to 1.43 in	5.1 to 7.3
C -- 29 to 60 in	sand	rapid	1.23 to 2.15 in	5.1 to 7.3

35--Blue Earth mucky silty clay loam, depressional, 0 to 1 percent slopes

Blue Earth, depressional

Extent: 80 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: coprogenous earth over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	mucky silty clay loam	moderate	1.77 to 2.36 in	7.4 to 8.4
Cg -- 10 to 68 in	mucky silty clay loam	moderate	10.42 to 13.89 in	7.4 to 8.4
2Cg -- 68 to 80 in	loam	moderate	1.83 to 2.32 in	7.4 to 8.4

74B--Dickinson fine sandy loam, 1 to 6 percent slopes

Dickinson

Extent: 95 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 1 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1,A2 -- 0 to 18 in	fine sandy loam	moderately rapid	2.17 to 2.72 in	5.6 to 7.3
Bw1,Bw2 -- 18 to 30 in	fine sandy loam	moderately rapid	1.42 to 1.77 in	5.1 to 6.5
BC -- 30 to 36 in	loamy sand	rapid	0.12 to 0.24 in	5.6 to 7.3
C -- 36 to 60 in	sand	rapid	0.48 to 0.96 in	5.6 to 7.3

86--Canisteo clay loam, moderately fine substratum, 0 to 2 percent slopes

Canisteo

Extent: 80 percent of the unit
Landform(s): flats on moraines, rims on depressions
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	clay loam	moderate	3.26 to 3.98 in	7.4 to 8.4
Bkg -- 18 to 39 in	loam	moderate	3.13 to 3.96 in	7.4 to 8.4
Cg -- 39 to 80 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

106C2--Lester loam, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 70 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

106D2--Lester loam, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

106E--Lester loam, 18 to 25 percent slopes

Lester

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 25 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
Land capability, nonirrigated: 6e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 5 in	loam	moderate	1.02 to 1.13 in	5.6 to 7.3
BE,Bt -- 5 to 34 in	clay loam	moderate	4.31 to 5.46 in	5.1 to 7.3
Bk -- 34 to 60 in	loam	moderate	3.90 to 4.94 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

109--Cordova clay loam, 0 to 2 percent slopes

Cordova

Extent: 90 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	clay loam	moderately slow	3.26 to 3.98 in	6.1 to 7.3
Btg -- 18 to 38 in	clay loam	moderately slow	3.01 to 3.81 in	5.1 to 7.3
Cg -- 38 to 80 in	loam	moderate	6.26 to 7.93 in	7.4 to 8.4

114--Glencoe clay loam, depressional, 0 to 1 percent slopes

Glencoe, depressional

Extent: 90 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	clay loam	moderate	1.77 to 2.17 in	6.1 to 7.8
A,ABg -- 10 to 35 in	clay loam	moderate	4.54 to 5.54 in	6.1 to 7.8
Bg -- 35 to 48 in	loam	moderate	1.95 to 2.47 in	6.6 to 7.8
Cg -- 48 to 60 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4

138--Lerdal silty clay loam, 1 to 3 percent slopes

Lerdal

Extent: 80 percent of the unit
Landform(s): moraines
Slope gradient: 1 to 3 percent
Parent material: glaciofluvial sediments and reworked till over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .37
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	silty clay loam	moderate	1.28 to 1.56 in	5.6 to 6.5
E -- 7 to 9 in	silty clay loam	moderate	0.35 to 0.43 in	5.6 to 6.5
Bt,Btg,Bw -- 9 to 47 in	silty clay loam	slow	4.91 to 7.18 in	4.5 to 6.0
Bk -- 47 to 60 in	clay loam	moderate	1.95 to 2.47 in	7.4 to 8.4

158A--Zimmerman fine sand, 0 to 3 percent slopes

Zimmerman

Extent: 90 percent of the unit
Landform(s): outwash plains
Slope gradient: 0 to 3 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 1
Wind erodibility index (WEI): 250
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	fine sand	rapid	0.50 to 0.64 in	5.1 to 6.5
E,Bw,E&Bt -- 7 to 80 in	fine sand	rapid	4.37 to 7.28 in	5.1 to 7.3

158B--Zimmerman fine sand, 3 to 6 percent slopes

Zimmerman

Extent: 90 percent of the unit
Landform(s): hills on outwash plains
Slope gradient: 3 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 1
Wind erodibility index (WEI): 250
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:		*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap --	0 to 7 in	fine sand	rapid	0.50 to 0.64 in	5.1 to 6.5
E,Bw,E&Bt --	7 to 80 in	fine sand	rapid	4.37 to 7.28 in	5.1 to 7.3

158C--Zimmerman fine sand, 6 to 12 percent slopes

Zimmerman

Extent: 90 percent of the unit
Landform(s): hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 1
Wind erodibility index (WEI): 250
Kw factor (surface layer) .10
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:		*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap --	0 to 7 in	fine sand	rapid	0.50 to 0.64 in	5.1 to 6.5
E,Bw,E&Bt --	7 to 80 in	fine sand	rapid	4.37 to 7.28 in	5.1 to 7.3

158E--Zimmerman fine sand, 12 to 25 percent slopes

Zimmerman

Extent: 85 percent of the unit
Landform(s): hills on outwash plains
Slope gradient: 12 to 25 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 1
Wind erodibility index (WEI): 250
Kw factor (surface layer) .10
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:			*Texture*	*Permeability*	*Available water capacity*	*pH*
A	--	0 to 3 in	fine sand	rapid	0.22 to 0.28 in	5.1 to 6.5
E,Bw,E&Bt	--	3 to 80 in	fine sand	rapid	4.61 to 7.68 in	5.1 to 7.3

169C--Braham loamy fine sand, 6 to 12 percent slopes

Braham

Extent: 90 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .28
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: low

Representative soil profile:			*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap	--	0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.6 to 7.3
E	--	8 to 28 in	loamy sand	rapid	1.61 to 2.01 in	5.6 to 7.3
2Bt	--	28 to 48 in	clay loam	moderate	3.01 to 3.61 in	5.1 to 7.3
2Bk	--	48 to 80 in	loam	moderate	4.78 to 5.74 in	7.4 to 8.4

181--Litchfield loamy fine sand, 0 to 2 percent slopes

Litchfield

Extent: 95 percent of the unit
Landform(s): outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 20 in	loamy fine sand	rapid	2.01 to 2.41 in	5.1 to 7.3
Bw -- 20 to 33 in	fine sand	moderately rapid	0.91 to 2.08 in	5.1 to 7.3
BC -- 33 to 40 in	very fine sandy loam	moderate	1.20 to 1.35 in	5.1 to 7.3
C -- 40 to 80 in	loamy fine sand	rapid	3.18 to 3.98 in	6.1 to 7.8

229--Waldorf silty clay loam, 0 to 2 percent slopes

Waldorf

Extent: 90 percent of the unit
Landform(s): flats on lake plains, flats on moraines
Slope gradient: 0 to 2 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 20 in	silty clay loam	moderately slow	3.61 to 5.02 in	6.1 to 7.3
Bg -- 20 to 53 in	silty clay	moderately slow	4.30 to 5.29 in	6.6 to 7.8
Cg -- 53 to 80 in	silty clay loam	moderately slow	5.35 to 5.89 in	7.4 to 8.4

231C--Lester fine sandy loam, 6 to 12 percent slopes

Lester

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	fine sandy loam	moderately rapid	1.09 to 1.36 in	5.6 to 7.3
BE,Bt -- 9 to 53 in	clay loam	moderate	6.61 to 8.38 in	5.1 to 7.3
C -- 53 to 80 in	loam	moderate	4.02 to 5.09 in	7.4 to 8.4

231D--Lester fine sandy loam, 12 to 18 percent slopes

Lester

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 6 in	fine sandy loam	moderately rapid	0.71 to 0.89 in	5.6 to 7.3
Bt -- 6 to 34 in	clay loam	moderate	4.19 to 5.31 in	5.1 to 7.3
C -- 34 to 80 in	loam	moderate	6.91 to 8.75 in	7.4 to 8.4

235--Nessel loam, 1 to 3 percent slopes

Nessel

Extent: 85 percent of the unit
Landform(s): moraines
Slope gradient: 1 to 3 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .37
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 6 in	loam	moderate	1.18 to 1.30 in	5.6 to 7.3
Bt -- 6 to 38 in	clay loam	moderate	4.84 to 6.13 in	5.1 to 7.3
C -- 38 to 80 in	loam	moderate	6.26 to 7.93 in	7.4 to 8.4

239--Le Sueur clay loam, 1 to 3 percent slopes

Le Sueur

Extent: 80 percent of the unit
Landform(s): moraines
Slope gradient: 1 to 3 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 17 in	clay loam	moderate	2.88 to 3.39 in	5.6 to 7.3
Bt -- 17 to 37 in	clay loam	moderate	3.01 to 3.81 in	5.1 to 7.3
Bk -- 37 to 46 in	loam	moderate	1.36 to 1.72 in	7.4 to 8.4
C -- 46 to 80 in	loam	moderate	5.08 to 6.43 in	7.4 to 8.4

247--Linder loam, 0 to 2 percent slopes

Linder

Extent: 90 percent of the unit
Landform(s): outwash plains, stream terraces
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	loam	moderate	2.60 to 2.86 in	6.1 to 7.3
Bw -- 13 to 24 in	sandy loam	moderately rapid	1.65 to 1.87 in	6.1 to 7.3
2C -- 24 to 60 in	stratified gravelly coarse sand to coarse sand to loamy coarse sand	very rapid	0.72 to 1.43 in	7.4 to 8.4

255--Mayer loam, 0 to 2 percent slopes

Mayer

Extent: 85 percent of the unit
Landform(s): flats on outwash plains, flats on stream terraces
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1,A2 -- 0 to 18 in	loam	moderate	3.62 to 3.98 in	7.4 to 8.4
Bg -- 18 to 33 in	sandy clay loam	moderate	2.39 to 2.84 in	7.4 to 8.4
2C -- 33 to 80 in	gravelly coarse sand	rapid	0.94 to 1.87 in	7.4 to 8.4

256--Mazaska silty clay loam, 0 to 2 percent slopes

Mazaska

Extent: 90 percent of the unit
Landform(s): drainageways on moraines, flats on moraines
Slope gradient: 0 to 2 percent
Parent material: glaciofluvial sediments and reworked till over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 15 in	silty clay loam	moderately slow	2.54 to 3.29 in	6.1 to 7.3
Btg -- 15 to 42 in	clay	slow	2.72 to 4.35 in	4.5 to 6.5
Bkg -- 42 to 80 in	loam	moderate	5.67 to 7.18 in	7.4 to 8.4

258B--Sandberg loamy sand, 2 to 6 percent slopes

Sandberg

Extent: 95 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 12 in	loamy sand	rapid	1.18 to 1.42 in	5.6 to 7.8
Bw -- 12 to 19 in	gravelly loamy coarse sand	rapid	0.21 to 0.71 in	6.1 to 7.8
Bk,C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 3.66 in	7.4 to 8.4

258C--Sandberg loamy sand, 6 to 12 percent slopes

Sandberg

Extent: 90 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 12 in	loamy sand	rapid	1.18 to 1.42 in	5.6 to 7.8
Bw -- 12 to 19 in	gravelly loamy coarse sand	rapid	0.21 to 0.71 in	6.1 to 7.8
Bk,C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 3.66 in	7.4 to 8.4

258E--Sandberg loamy sand, 12 to 35 percent slopes

Sandberg

Extent: 85 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 12 to 35 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 12 in	loamy sand	rapid	1.18 to 1.42 in	5.6 to 7.8
Bw -- 12 to 19 in	gravelly loamy coarse sand	rapid	0.21 to 0.71 in	6.1 to 7.8
Bk,C -- 19 to 80 in	gravelly coarse sand	very rapid	1.22 to 3.66 in	7.4 to 8.4

260--Duelm loamy sand, 0 to 2 percent slopes

Duelm

Extent: 90 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained
Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 16 in	loamy sand	rapid	1.29 to 1.94 in	5.6 to 7.3
Bw -- 16 to 30 in	coarse sand	rapid	0.83 to 1.52 in	5.1 to 7.3
C -- 30 to 80 in	coarse sand	rapid	1.00 to 3.50 in	5.6 to 7.8

261--Isan sandy loam, depressional, 0 to 1 percent slopes

Isan, depressional

Extent: 90 percent of the unit
Landform(s): depressions on stream terraces, depressions on outwash plains
Slope gradient: 0 to 1 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained
Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 14 in	sandy loam	moderately rapid	1.42 to 2.13 in	5.6 to 7.3
AB,Bg -- 14 to 34 in	loamy sand	rapid	1.18 to 1.97 in	5.1 to 6.5
Cg -- 34 to 80 in	coarse sand	rapid	1.84 to 2.76 in	5.6 to 7.3

286B--Shorewood silty clay loam, 3 to 6 percent slopes

Shorewood

Extent: 95 percent of the unit
Landform(s): hills on lake plains, hills on moraines
Slope gradient: 3 to 6 percent
Parent material: lacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 17 in	silty clay loam	moderately slow	3.05 to 3.72 in	5.6 to 7.3
Bt -- 17 to 39 in	silty clay	moderately slow	2.87 to 3.53 in	5.1 to 7.3
2BCg,2Cg -- 39 to 60 in	loam	moderate	3.13 to 3.96 in	7.4 to 8.4

294A--Rasset sandy loam, 0 to 2 percent slopes

Rasset

Extent: 90 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.94 to 2.24 in	5.1 to 7.3
Bt -- 15 to 28 in	sandy loam	moderately rapid	1.56 to 2.47 in	5.1 to 7.3
2BC -- 28 to 36 in	loamy sand	rapid	0.47 to 0.87 in	5.1 to 7.3
2C -- 36 to 80 in	sand	very rapid	0.88 to 3.09 in	5.1 to 7.8

323--Shields silty clay loam, 0 to 3 percent slopes

Shields

Extent: 95 percent of the unit
Landform(s): moraines
Slope gradient: 0 to 3 percent
Parent material: glaciofluvial sediments and reworked till over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 2w
Hydric soil: no
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	silty clay loam	moderate	1.42 to 1.73 in	5.6 to 6.5
BE,Btg -- 8 to 41 in	silty clay	slow	3.31 to 5.29 in	5.6 to 6.5
2Bk -- 41 to 80 in	silty clay loam	moderate	4.29 to 7.41 in	7.4 to 8.4

327A--Dickman sandy loam, 0 to 2 percent slopes

Dickman

Extent: 85 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 12 in	sandy loam	moderately rapid	1.54 to 1.77 in	5.6 to 6.5
Bw -- 12 to 19 in	sandy loam	moderately rapid	0.85 to 0.99 in	5.6 to 7.3
2Bw -- 19 to 33 in	loamy sand	rapid	0.43 to 0.99 in	5.6 to 7.3
2C -- 33 to 80 in	sand	rapid	0.94 to 3.28 in	6.1 to 7.8

327B--Dickman sandy loam, 2 to 6 percent slopes

Dickman

Extent: 85 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 12 in	sandy loam	moderately rapid	1.54 to 1.77 in	5.6 to 6.5
Bw -- 12 to 19 in	sandy loam	moderately rapid	0.85 to 0.99 in	5.6 to 7.3
2Bw -- 19 to 33 in	loamy sand	rapid	0.43 to 0.99 in	5.6 to 7.3
2C -- 33 to 80 in	sand	rapid	0.94 to 3.28 in	6.1 to 7.8

375--Forada loam, 0 to 2 percent slopes

Forada

Extent: 85 percent of the unit
Landform(s): drainageways on outwash plains, drainageways on stream terraces
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap,A	0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bg	16 to 28 in	loam	moderately rapid	1.42 to 2.24 in	6.1 to 7.8
2Cg	28 to 60 in	coarse sand	rapid	0.64 to 3.19 in	6.6 to 8.4

392--Biscay loam, 0 to 2 percent slopes

Biscay

Extent: 90 percent of the unit
Landform(s): drainageways on outwash plains, flats on outwash plains, drainageways on stream terraces, flats on stream terraces
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1,A2 -- 0 to 20 in	loam	moderate	4.02 to 4.42 in	6.1 to 7.8
Bg -- 20 to 28 in	loam	moderate	1.34 to 1.50 in	6.6 to 7.8
2BCg -- 28 to 36 in	gravelly loam	moderately rapid	0.87 to 1.34 in	6.6 to 7.8
2Cg -- 36 to 60 in	stratified gravelly coarse sand to loamy sand	rapid	0.48 to 0.96 in	7.4 to 8.4

406--Dorset sandy loam, 0 to 2 percent slopes

Dorset

Extent: 90 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt -- 11 to 19 in	sandy loam	moderately rapid	0.94 to 1.50 in	5.6 to 7.3
2BC -- 19 to 32 in	gravelly loamy sand	rapid	0.78 to 1.30 in	6.6 to 8.4
2C -- 32 to 80 in	gravelly coarse sand	rapid	0.96 to 1.92 in	7.4 to 8.4

414--Hamel loam, 1 to 3 percent slopes

Hamel

Extent: 90 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 1 to 3 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 24 in	loam	moderate	4.80 to 5.76 in	5.6 to 7.3
Btg -- 24 to 46 in	clay loam	moderately slow	3.53 to 4.19 in	5.6 to 7.3
Cg -- 46 to 80 in	loam	moderate	5.08 to 6.43 in	7.4 to 8.4

441--Almora loam, 0 to 2 percent slopes

Almora

Extent: 90 percent of the unit
Landform(s): outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
BE -- 10 to 14 in	fine sandy loam	moderate	0.52 to 0.82 in	5.6 to 7.3
Bt -- 14 to 36 in	loam	moderate	3.03 to 4.11 in	5.6 to 7.3
2Bt -- 36 to 41 in	loamy sand	rapid	0.10 to 0.56 in	5.6 to 7.8
2C -- 41 to 80 in	gravelly coarse sand	rapid	0.78 to 2.73 in	7.4 to 8.4

461B--Koronis loam, 2 to 6 percent slopes

Koronis

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 31 in	loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk,C -- 31 to 80 in	fine sandy loam	moderately rapid	5.37 to 7.81 in	7.4 to 8.4

461C2--Koronis loam, 6 to 12 percent slopes, eroded

Koronis, eroded

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .37
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 31 in	loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk,C -- 31 to 80 in	fine sandy loam	moderately rapid	5.37 to 7.81 in	7.4 to 8.4

461E--Koronis loam, 18 to 40 percent slopes

Koronis

Extent: 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderately rapid	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 28 in	loam	moderately rapid	3.13 to 3.96 in	5.6 to 7.3
Bk -- 28 to 80 in	fine sandy loam	moderately rapid	5.72 to 8.31 in	7.4 to 8.4

511--Marcellon loam, map <30, 0 to 3 percent slopes

Marcellon, MAP<30

Extent: 85 percent of the unit
Landform(s): moraines
Slope gradient: 0 to 3 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	loam	moderate	2.21 to 3.12 in	5.6 to 7.3
Bt -- 13 to 32 in	loam	moderate	2.27 to 3.40 in	5.6 to 7.3
Bk -- 32 to 60 in	sandy loam	moderately rapid	3.07 to 4.47 in	7.4 to 8.4

523--Houghton muck, depressional, 0 to 1 percent slopes

Houghton, drained

Extent: 80 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oap -- 0 to 10 in	muck	moderately rapid	3.44 to 4.43 in	
Oa -- 10 to 80 in	muck	moderately rapid	24.53 to 31.54 in	

525--Muskego muck, depressional, 0 to 1 percent slopes

Muskego, surface drained

Extent: 75 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	

539--Klossner muck, depressional, 0 to 1 percent slopes

Klossner, drained

Extent: 80 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oap,Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 36 in	mucky silty clay loam	moderate	2.17 to 2.56 in	
2A2 -- 36 to 48 in	silty clay loam	moderate	2.20 to 2.69 in	
2Cg -- 48 to 80 in	loam	moderate	4.78 to 6.06 in	

540--Seelyeville muck, depressional, 0 to 1 percent slopes

Seelyeville, surface drained

Extent: 80 percent of the unit
Landform(s): depressions on moraines, depressions on outwash plains
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 10 in	muck	moderately rapid	3.44 to 4.43 in	
Oa2,Oa5 -- 10 to 80 in	muck	moderately rapid	24.53 to 31.54 in	

543--Markey muck, depressional, 0 to 1 percent slopes

Markey, surface drained

Extent: 80 percent of the unit
Landform(s): depressions on stream terraces, depressions on outwash plains
Slope gradient: 0 to 1 percent
Parent material: organic material over outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 36 in	muck	moderately rapid	12.54 to 16.12 in	
A -- 36 to 42 in	loamy sand	rapid	0.19 to 0.50 in	
Cg -- 42 to 80 in	sand	rapid	1.13 to 3.02 in	

548--Medo muck, depressional, 0 to 1 percent slopes

Medo, drained

Extent: 80 percent of the unit
Landform(s): depressions on stream terraces, depressions on outwash plains
Slope gradient: 0 to 1 percent
Parent material: organic material over outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oap,Oa -- 0 to 27 in	muck	moderately rapid	9.51 to 12.22 in	
2A -- 27 to 35 in	mucky loam	moderately rapid	1.02 to 1.57 in	
2Bg -- 35 to 39 in	sandy clay loam	moderately rapid	0.51 to 0.79 in	
2Cg -- 39 to 80 in	gravelly loamy coarse sand	rapid	1.23 to 4.09 in	

603--Hanlon fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Hanlon, occasionally flooded

Extent: 80 percent of the unit
Landform(s): rises on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1,A2 -- 0 to 40 in	fine sandy loam	moderately rapid	6.43 to 7.23 in	6.1 to 7.3
A3 -- 40 to 63 in	fine sandy loam	moderately rapid	3.65 to 4.11 in	6.1 to 7.3
Bw -- 63 to 70 in	sandy loam	moderately rapid	0.78 to 0.92 in	5.6 to 7.3
Cg -- 70 to 80 in	stratified sand to loamy fine sand to fine sandy loam	moderately rapid	1.18 to 1.87 in	5.6 to 7.8

611D--Hawick gravelly sandy loam, 12 to 25 percent slopes

Hawick

Extent: 85 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 12 to 25 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .15
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 10 in	gravelly sandy loam	rapid	0.30 to 1.28 in	6.1 to 7.8
C -- 10 to 60 in	gravelly coarse sand	very rapid	1.00 to 3.00 in	7.4 to 8.4

708--Rushlake coarse sand, 1 to 4 percent slopes

Rushlake

Extent: 85 percent of the unit
Landform(s): beaches
Slope gradient: 1 to 4 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 1
Wind erodibility index (WEI): 180
Kw factor (surface layer) .02
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	coarse sand	rapid	0.36 to 0.63 in	6.1 to 7.8
C -- 9 to 80 in	coarse sand	rapid	1.42 to 7.09 in	6.5 to 8.4

740--Hamel-Glencoe, depressional, complex, 0 to 3 percent slopes

Hamel

Extent: 70 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 3 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 24 in	loam	moderate	4.80 to 5.76 in	5.6 to 7.3
Btg -- 24 to 46 in	clay loam	moderately slow	3.53 to 4.19 in	5.6 to 7.3
Cg -- 46 to 80 in	loam	moderate	5.08 to 6.43 in	7.4 to 8.4

Glencoe, depressional

Extent: 20 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	clay loam	moderate	1.77 to 2.17 in	6.1 to 7.8
A,ABg -- 10 to 35 in	clay loam	moderate	4.54 to 5.54 in	6.1 to 7.8
Bg -- 35 to 48 in	loam	moderate	1.95 to 2.47 in	6.6 to 7.8
Cg -- 48 to 60 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4

768--Mosford sandy loam, 0 to 2 percent slopes

Mosford

Extent: 85 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.1 to 7.3
Bw -- 13 to 16 in	coarse sandy loam	moderately rapid	0.38 to 0.54 in	5.1 to 7.3
2Bw -- 16 to 35 in	coarse sand	rapid	0.57 to 2.08 in	5.1 to 7.3
2C -- 35 to 80 in	sand	rapid	0.90 to 3.14 in	5.1 to 7.8

771--Elkriver fine sandy loam, 0 to 2 percent slopes, rarely flooded

Elkriver, rarely flooded

Extent: 85 percent of the unit
Landform(s): benches on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: rare
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.97 in	5.1 to 7.3
A1,A3 -- 10 to 35 in	fine sandy loam	moderately rapid	3.78 to 5.04 in	5.1 to 7.3
Bw -- 35 to 39 in	fine sandy loam	moderately rapid	0.59 to 0.75 in	5.6 to 7.8
2C -- 39 to 80 in	sand	rapid	0.82 to 4.09 in	5.6 to 7.8

783C2--Lester-Kilkenny complex, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

Kilkenny, eroded

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: glaciofluvial sediments and reworked till over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	clay loam	moderately slow	1.54 to 1.72 in	5.6 to 7.3
Bt -- 9 to 53 in	clay loam	moderately slow	6.61 to 8.38 in	5.1 to 7.3
2BC,2C -- 53 to 80 in	loam	moderate	4.02 to 5.09 in	7.4 to 8.4

792--Fordum fine sandy loam, 0 to 2 percent slopes, frequently flooded

Fordum, frequently flooded

Extent: 90 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 7 in	fine sandy loam	moderately rapid	0.78 to 1.28 in	5.1 to 7.3
Cg -- 7 to 28 in	sandy loam	moderately rapid	2.09 to 4.59 in	5.1 to 7.3
2Cg -- 28 to 80 in	sand	rapid	2.08 to 5.20 in	5.6 to 7.3

799--Seelyeville and Bowstring soils, 0 to 1 percent slopes, frequently flooded

Seelyeville, frequently flooded

Extent: 45 percent of the unit
Landform(s): flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 12 in	muck	moderately rapid	4.13 to 5.31 in	
Oa2,Oa3 -- 12 to 80 in	muck	moderately rapid	23.84 to 30.65 in	

Bowstring, frequently flooded

Extent: 45 percent of the unit
Landform(s): flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material and alluvium
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1,Oa2 -- 0 to 38 in	muck	moderately rapid	13.23 to 17.01 in	
Cg -- 38 to 47 in	stratified fine sand to fine sandy loam	rapid	0.72 to 1.27 in	
O'a1 -- 47 to 80 in	muck	moderately rapid	11.57 to 14.88 in	

804B--Koronis-Sunburg-Hawick complex, 2 to 6 percent slopes

Koronis

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 25 in	sandy loam	moderately rapid	2.60 to 3.29 in	5.6 to 7.3
Bk -- 25 to 60 in	sandy loam	moderately rapid	3.81 to 5.54 in	7.4 to 8.4

Sunburg

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 4 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Apk -- 0 to 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	6.6 to 8.4
Bk -- 7 to 60 in	sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

804B--Koronis-Sunburg-Hawick complex, 2 to 6 percent slopes

Hawick

Extent: 15 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

804C2--Koronis-Sunburg-Hawick complex, 6 to 12 percent slopes, eroded

Koronis, eroded

Extent: 45 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 25 in	sandy loam	moderately rapid	2.60 to 3.29 in	5.6 to 7.3
Bk -- 25 to 60 in	sandy loam	moderately rapid	3.81 to 5.54 in	7.4 to 8.4

Sunburg

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Apk -- 0 to 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	6.6 to 8.4
Bk -- 7 to 60 in	sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

804C2--Koronis-Sunburg-Hawick complex, 6 to 12 percent slopes, eroded

Hawick

Extent: 15 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

804D2--Koronis-Sunburg-Hawick complex, 12 to 18 percent slopes, eroded

Koronis, eroded

Extent: 40 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 25 in	sandy loam	moderately rapid	2.60 to 3.29 in	5.6 to 7.3
Bk -- 25 to 60 in	sandy loam	moderately rapid	3.81 to 5.54 in	7.4 to 8.4

Sunburg

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Apk -- 0 to 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	6.6 to 8.4
Bk -- 7 to 60 in	sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

804D2--Koronis-Sunburg-Hawick complex, 12 to 18 percent slopes, eroded

Hawick

Extent: 15 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

804E--Koronis-Sunburg-Hawick complex, 18 to 40 percent slopes

Koronis

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 5 in	fine sandy loam	moderately rapid	1.02 to 1.13 in	5.6 to 7.3
BA,Bt -- 5 to 21 in	fine sandy loam	moderately rapid	2.36 to 2.99 in	5.6 to 7.3
Bk -- 21 to 60 in	fine sandy loam	moderately rapid	4.29 to 6.24 in	7.4 to 8.4

Sunburg

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 4 in	fine sandy loam	moderately rapid	0.63 to 0.71 in	6.6 to 8.4
Bk -- 4 to 60 in	fine sandy loam	moderately rapid	6.15 to 8.94 in	7.4 to 8.4

804E--Koronis-Sunburg-Hawick complex, 18 to 40 percent slopes

Hawick

Extent: 15 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1,A2 -- 0 to 11 in	gravelly loamy coarse sand	rapid	0.33 to 1.43 in	6.1 to 7.8
Bw -- 11 to 16 in	gravelly loamy coarse sand	rapid	0.15 to 0.51 in	6.1 to 7.8
C -- 16 to 60 in	gravelly coarse sand	very rapid	0.87 to 2.62 in	7.4 to 8.4

807D2--Koronis-Sunburg complex, 12 to 18 percent slopes, eroded

Koronis, eroded

Extent: 65 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 25 in	sandy loam	moderately rapid	2.60 to 3.29 in	5.6 to 7.3
Bk -- 25 to 60 in	sandy loam	moderately rapid	3.81 to 5.54 in	7.4 to 8.4

Sunburg

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Apk -- 0 to 7 in	sandy loam	moderately rapid	1.13 to 1.28 in	6.6 to 8.4
Bk -- 7 to 60 in	sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

875B--Estherville-Hawick complex, 2 to 6 percent slopes

Estherville

Extent: 60 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw1 -- 13 to 18 in	sandy loam	moderately rapid	0.61 to 0.85 in	5.6 to 7.3
2Bw2 -- 18 to 23 in	loamy coarse sand	rapid	0.10 to 0.20 in	5.6 to 7.3
2C -- 23 to 60 in	gravelly coarse sand	rapid	0.74 to 1.48 in	6.6 to 8.4

Hawick

Extent: 30 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

875C--Hawick-Estherville complex, 6 to 12 percent slopes

Hawick

Extent: 60 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

Estherville

Extent: 25 percent of the unit
Landform(s): hills on outwash plains, hills on stream terraces
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.6 to 7.3
Bw1 -- 13 to 18 in	sandy loam	moderately rapid	0.61 to 0.85 in	5.6 to 7.3
2Bw2 -- 18 to 23 in	loamy coarse sand	rapid	0.10 to 0.20 in	5.6 to 7.3
2C -- 23 to 60 in	gravelly coarse sand	rapid	0.74 to 1.48 in	6.6 to 8.4

896B--Kingsley-Gotham complex, 2 to 6 percent slopes

Kingsley

Extent: 70 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 6 in	sandy loam	moderate	0.59 to 1.06 in	5.6 to 6.5
E -- 6 to 18 in	sandy loam	moderate	1.22 to 1.83 in	5.6 to 6.5
Bt -- 18 to 45 in	sandy loam	moderately slow	3.48 to 4.28 in	5.1 to 7.3
C -- 45 to 80 in	sandy loam	moderately slow	3.85 to 4.91 in	5.6 to 7.8

Gotham

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: glaciofluvial sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 18 in	loamy sand	rapid	0.54 to 1.00 in	5.1 to 7.3
Bw,BC -- 18 to 40 in	sand	rapid	1.98 to 2.43 in	5.1 to 7.3
C -- 40 to 80 in	sand	rapid	1.99 to 3.98 in	5.1 to 7.3

896C--Kingsley-Gotham complex, 6 to 12 percent slopes

Kingsley

Extent: 70 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: C
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 6 in	sandy loam	moderate	0.59 to 1.06 in	5.6 to 6.5
E -- 6 to 18 in	sandy loam	moderate	1.22 to 1.83 in	5.6 to 6.5
Bt -- 18 to 45 in	sandy loam	moderately slow	3.48 to 4.28 in	5.1 to 7.3
C -- 45 to 80 in	sandy loam	moderately slow	3.85 to 4.91 in	5.6 to 7.8

Gotham

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: glaciofluvial sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .24
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 18 in	loamy sand	rapid	0.54 to 1.00 in	5.1 to 7.3
Bw,BC -- 18 to 40 in	sand	rapid	1.98 to 2.43 in	5.1 to 7.3
C -- 40 to 80 in	sand	rapid	1.99 to 3.98 in	5.1 to 7.3

945C2--Lester-Storden complex, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

Storden, eroded

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 55 in	loam	moderate	7.20 to 9.13 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

945D2--Lester-Storden complex, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

Storden, eroded

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 55 in	loam	moderate	7.20 to 9.13 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

956--Canisteo-Glencoe, depressional, complex, 0 to 2 percent slopes

Canisteo

Extent: 65 percent of the unit
Landform(s): flats on moraines, rims on depressions on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	clay loam	moderate	3.26 to 3.98 in	7.4 to 8.4
Bkg -- 18 to 39 in	loam	moderate	3.13 to 3.96 in	7.4 to 8.4
Cg -- 39 to 80 in	loam	moderate	6.14 to 7.78 in	7.4 to 8.4

Glencoe, depressional

Extent: 25 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	clay loam	moderate	1.77 to 2.17 in	6.1 to 7.8
A,ABg -- 10 to 35 in	clay loam	moderate	4.54 to 5.54 in	6.1 to 7.8
Bg -- 35 to 48 in	loam	moderate	1.95 to 2.47 in	6.6 to 7.8
Cg -- 48 to 60 in	loam	moderate	1.77 to 2.24 in	7.4 to 8.4

978--Cordova-Rolfe, depressional, complex, 0 to 2 percent slopes

Cordova

Extent: 60 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	clay loam	moderately slow	3.26 to 3.98 in	6.1 to 7.3
Btg -- 18 to 38 in	clay loam	moderately slow	3.01 to 3.81 in	5.1 to 7.3
Cg -- 38 to 80 in	loam	moderate	6.26 to 7.93 in	7.4 to 8.4

Rolfe, depressional

Extent: 30 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: glaciolacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 12 in	silt loam	moderate	2.60 to 2.83 in	5.1 to 7.3
E -- 12 to 20 in	silt loam	moderate	1.73 to 1.89 in	5.1 to 6.5
Btg -- 20 to 35 in	silty clay	slow	1.69 to 2.00 in	5.6 to 7.3
2Bt -- 35 to 51 in	clay loam	moderate	2.20 to 2.52 in	6.1 to 7.3
2Cg -- 51 to 60 in	loam	moderate	1.36 to 1.72 in	7.4 to 8.4

1000--Arvilla sandy loam, map >25, 0 to 2 percent slopes

Arvilla, MAP>25

Extent: 90 percent of the unit
Landform(s): stream terraces
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 14 in	sandy loam	moderately rapid	1.84 to 2.13 in	6.1 to 7.3
Bw -- 14 to 20 in	sandy loam	moderately rapid	0.65 to 0.83 in	6.1 to 7.3
2Bw,2Bk,2C -- 20 to 80 in	gravelly coarse sand	rapid	1.20 to 2.99 in	7.4 to 8.4

1015--Udipsamments (cut and fill land)

Udipsamments, (cut and fill land)

Extent: 100 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: variable sandy material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*

1016--Udorthents, loamy (cut and fill land)

Udorthents, loamy (cut and fill land)

Extent: 100 percent of the unit
Landform(s): moraines
Slope gradient: 0 to 6 percent
Parent material: variable loamy material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:

Texture	*Permeability*	*Available water capacity*	*pH*

1023C--Lester-Malardi complex, 6 to 12 percent slopes, eroded

Lester, eroded

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

Malardi

Extent: 35 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	5.6 to 7.3
Bt -- 10 to 15 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 15 to 29 in	loamy coarse sand	rapid	0.85 to 1.42 in	5.6 to 7.3
2C -- 29 to 80 in	gravelly sand	rapid	1.02 to 2.03 in	7.0 to 8.4

1023D--Lester-Malardi complex, 12 to 18 percent slopes, eroded

Lester, eroded

Extent: 45 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	5.6 to 7.3
Bt -- 7 to 38 in	clay loam	moderate	4.67 to 5.91 in	5.1 to 7.3
Bk -- 38 to 60 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 60 to 80 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4

Malardi

Extent: 40 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	5.6 to 7.3
Bt -- 9 to 14 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 14 to 21 in	gravelly loamy coarse sand	rapid	0.40 to 0.67 in	5.6 to 7.3
2C -- 21 to 80 in	gravelly sand	rapid	1.18 to 2.36 in	7.0 to 8.4

1026B--Lizzie silt loam, moderately wet, 1 to 5 percent slopes

Lizzie, moderately wet

Extent: 90 percent of the unit
Landform(s): hills on moraines
Slope gradient: 1 to 5 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .37
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,E -- 0 to 12 in	silt loam	moderate	2.36 to 2.83 in	6.1 to 7.3
Bt -- 12 to 36 in	silt loam	moderate	3.60 to 5.28 in	6.1 to 7.3
BC -- 36 to 40 in	very fine sandy loam	moderate	0.65 to 0.95 in	6.6 to 7.4
C -- 40 to 80 in	very fine sandy loam	moderately rapid	3.18 to 8.75 in	7.4 to 8.4

1027--Udorthents, wet substratum (fill land)

Udorthents, wet substratum (fill land)

Extent: 100 percent of the unit
Landform(s): moraines, outwash plains, stream terraces
Slope gradient: 0 to 2 percent
Parent material: variable soil material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*

1030--Pits, gravel-Udipsamments complex

Pits, gravel

Extent: 80 percent of the unit
Landform(s): outwash plains, stream terraces, moraines
Slope gradient: 0 to 50 percent
Parent material: sandy and gravelly outwash
Restrictive feature(s): greater than 60 inches
Flooding:
Ponding:
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*

Udipsamments

Extent: 20 percent of the unit
Landform(s): outwash plains, stream terraces, moraines
Slope gradient: 0 to 25 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding:
Ponding:
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*

1035B--Crowfork loamy sand, 1 to 6 percent slopes

Crowfork

Extent: 90 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 1 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	loamy sand	rapid	1.10 to 1.32 in	5.6 to 7.3
E -- 11 to 20 in	loamy fine sand	rapid	0.54 to 1.00 in	5.1 to 6.5
E&Bt -- 20 to 76 in	loamy sand	rapid	3.35 to 6.15 in	5.6 to 7.3
C -- 76 to 80 in	sand	rapid	0.08 to 0.28 in	6.1 to 7.8

1035C--Crowfork loamy sand, 6 to 12 percent slopes

Crowfork

Extent: 90 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	loamy sand	rapid	1.10 to 1.32 in	5.6 to 7.3
E -- 11 to 20 in	loamy fine sand	rapid	0.54 to 1.00 in	5.1 to 6.5
E&Bt -- 20 to 76 in	loamy sand	rapid	3.35 to 6.15 in	5.6 to 7.3
C -- 76 to 80 in	sand	rapid	0.08 to 0.28 in	6.1 to 7.8

1035D--Crowfork loamy sand, 12 to 18 percent slopes

Crowfork

Extent: 85 percent of the unit
Landform(s): hills on stream terraces
Slope gradient: 12 to 18 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	loamy sand	rapid	1.10 to 1.32 in	5.6 to 7.3
E -- 11 to 20 in	loamy fine sand	rapid	0.54 to 1.00 in	5.1 to 6.5
E&Bt -- 20 to 76 in	loamy sand	rapid	3.35 to 6.15 in	5.6 to 7.3
C -- 76 to 80 in	sand	rapid	0.08 to 0.28 in	6.1 to 7.8

1036B--Angus fine sandy loam, 2 to 5 percent slopes

Angus

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	fine sandy loam	moderately rapid	1.09 to 1.36 in	5.6 to 7.3
Bt -- 9 to 46 in	loam	moderate	5.55 to 7.03 in	5.1 to 7.3
Bk -- 46 to 58 in	loam	moderate	1.65 to 2.24 in	6.1 to 7.8
C -- 58 to 80 in	loam	moderate	3.31 to 4.19 in	7.4 to 8.4

1037--Eckvoll loamy fine sand, map >25, 0 to 3 percent slopes

Eckvoll, MAP>25

Extent: 90 percent of the unit
Landform(s): moraines
Slope gradient: 0 to 3 percent
Parent material: outwash over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loamy fine sand	rapid	0.91 to 1.09 in	6.1 to 7.3
E -- 9 to 24 in	fine sand	rapid	0.90 to 1.20 in	6.1 to 7.3
2Bt -- 24 to 45 in	loam	moderate	3.34 to 3.76 in	6.1 to 7.3
2C -- 45 to 80 in	loam	moderate	5.96 to 6.66 in	7.4 to 8.4

1038A--Verndale sandy loam, acid substratum, 0 to 2 percent slopes

Verndale, acid substratum

Extent: 90 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.67 in	5.1 to 7.3
Bt -- 10 to 19 in	sandy loam	moderate	1.27 to 1.63 in	5.1 to 7.3
2Bw -- 19 to 28 in	sand	rapid	0.54 to 0.72 in	5.1 to 7.3
2C -- 28 to 80 in	sand	rapid	1.04 to 3.12 in	5.1 to 7.3

1038B--Verndale sandy loam, acid substratum, 2 to 6 percent slopes

Verndale, acid substratum

Extent: 85 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.67 in	5.1 to 7.3
Bt -- 10 to 19 in	sandy loam	moderate	1.27 to 1.63 in	5.1 to 7.3
2Bw -- 19 to 28 in	sand	rapid	0.54 to 0.72 in	5.1 to 7.3
2C -- 28 to 80 in	sand	rapid	1.04 to 3.12 in	5.1 to 7.3

1066B--Malardi-Hawick complex, 1 to 6 percent slopes

Malardi

Extent: 65 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 1 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	5.6 to 7.3
Bt -- 10 to 15 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 15 to 29 in	loamy coarse sand	rapid	0.85 to 1.42 in	5.6 to 7.3
2C -- 29 to 80 in	gravelly sand	rapid	1.02 to 2.03 in	7.0 to 8.4

Hawick

Extent: 25 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 3 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

1066C--Malardi-Hawick complex, 6 to 12 percent slopes

Malardi

Extent: 60 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	5.6 to 7.3
Bt -- 10 to 15 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 15 to 29 in	loamy coarse sand	rapid	0.85 to 1.42 in	5.6 to 7.3
2C -- 29 to 80 in	gravelly sand	rapid	1.02 to 2.03 in	7.0 to 8.4

Hawick

Extent: 25 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

1066E--Malardi-Hawick complex, 18 to 35 percent slopes

Malardi

Extent: 55 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 18 to 35 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	5.6 to 7.3
Bt -- 9 to 14 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 14 to 21 in	gravelly loamy coarse sand	rapid	0.40 to 0.67 in	5.6 to 7.3
2C -- 21 to 80 in	gravelly sand	rapid	1.18 to 2.36 in	7.0 to 8.4

Hawick

Extent: 30 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 18 to 35 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.1 to 7.8
Bw -- 7 to 11 in	gravelly loamy coarse sand	rapid	0.12 to 0.39 in	6.1 to 7.8
C -- 11 to 80 in	gravelly coarse sand	very rapid	1.38 to 4.13 in	7.4 to 8.4

1072--Udorthents, shallow (sanitary landfill)

Udorthents, shallow (sanitary landfill)

Extent: 100 percent of the unit
Landform(s): moraines, outwash plains
Slope gradient: 0 to 20 percent
Parent material: variable loamy material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:

Texture	*Permeability*	*Available water capacity*	*pH*

1075--Klossner and Muskego soils, ponded, 0 to 1 percent slopes

Klossner, ponded

Extent: 40 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	
2Cg -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	

Muskego, ponded

Extent: 40 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	

1080--Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

Klossner, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	
2Cg -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	

Okoboji, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: alluvium or lacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .28
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1 -- 0 to 10 in	mucky silty clay loam	moderate	2.17 to 2.46 in	6.1 to 7.8
A2 -- 10 to 52 in	silty clay loam	moderately slow	7.58 to 8.43 in	6.6 to 7.8
Bg -- 52 to 60 in	silty clay loam	moderately slow	1.42 to 1.57 in	6.6 to 7.8

1080--Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes

Glencoe, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .28
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 42 in	silty clay loam	moderate	7.58 to 9.27 in	6.1 to 7.8
Bg -- 42 to 50 in	clay loam	moderate	1.18 to 1.50 in	6.6 to 7.8
Cg -- 50 to 60 in	loam	moderate	1.48 to 1.87 in	7.4 to 8.4

1087B--Angus-Malardi complex, 2 to 6 percent slopes

Angus

Extent: 55 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
BC -- 35 to 40 in	clay loam	moderate	0.72 to 0.97 in	6.1 to 7.8
C -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

Malardi

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	5.6 to 7.3
Bt -- 10 to 15 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt -- 15 to 29 in	loamy coarse sand	rapid	0.85 to 1.42 in	5.6 to 7.3
2C -- 29 to 80 in	gravelly sand	rapid	1.02 to 2.03 in	7.0 to 8.4

1094B--Angus-Cordova complex, 0 to 5 percent slopes

Angus

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
BC -- 35 to 40 in	clay loam	moderate	0.72 to 0.97 in	6.1 to 7.8
C -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

Cordova

Extent: 30 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 13 in	loam	moderate	2.34 to 2.86 in	6.1 to 7.3
Btg -- 13 to 33 in	clay loam	moderately slow	3.01 to 3.81 in	5.1 to 6.5
Cg -- 33 to 80 in	loam	moderate	7.03 to 8.90 in	7.4 to 8.4

1099--Granby loamy fine sand, very wet, 0 to 1 percent slopes

Granby, very wet

Extent: 85 percent of the unit
Landform(s): beaches on moraines
Slope gradient: 0 to 1 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .05
Land capability, nonirrigated: 5w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 12 in	loamy fine sand	rapid	1.18 to 1.42 in	5.6 to 7.3
AC -- 12 to 24 in	loamy fine sand	rapid	0.61 to 1.46 in	5.6 to 7.8
C -- 24 to 60 in	loamy fine sand	rapid	1.79 to 3.22 in	6.6 to 8.4

1110--Isan sandy loam, 0 to 2 percent slopes

Isan

Extent: 90 percent of the unit
Landform(s): drainageways on stream terraces, beaches on stream terraces, drainageways on outwash plains, beaches on outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 18 in	sandy loam	moderately rapid	1.81 to 2.72 in	5.6 to 7.3
AB,Bg -- 18 to 29 in	loamy sand	rapid	0.66 to 1.10 in	5.1 to 6.5
Cg -- 29 to 80 in	coarse sand	rapid	2.03 to 3.05 in	5.6 to 7.3

1156--Cordova loam, 0 to 2 percent slopes

Cordova

Extent: 85 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 13 in	loam	moderate	2.34 to 2.86 in	6.1 to 7.3
Btg -- 13 to 33 in	clay loam	moderately slow	3.01 to 3.81 in	5.1 to 6.5
Cg -- 33 to 80 in	loam	moderate	7.03 to 8.90 in	7.4 to 8.4

1163--Suckercreek loam, 0 to 2 percent slopes, frequently flooded

Suckercreek, frequently flooded

Extent: 85 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .28
Land capability, nonirrigated: 5w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 22 in	loam	moderately rapid	3.97 to 5.29 in	7.4 to 8.4
Cg -- 22 to 80 in	loamy fine sand	moderately rapid	4.63 to 11.57 in	7.4 to 8.4

1165--Lundlake silty clay loam, depressional, 0 to 1 percent slopes

Lundlake, depressional

Extent: 90 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 12 in	silty clay loam	moderate	2.01 to 2.60 in	6.6 to 7.3
A1,A2,AB -- 12 to 36 in	loam	moderate	4.08 to 5.28 in	6.6 to 7.3
2Bg -- 36 to 72 in	sandy loam	moderate	5.43 to 6.88 in	6.6 to 7.8
2Cg -- 72 to 80 in	sandy loam	moderately rapid	0.79 to 1.18 in	7.4 to 7.8

1173--Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded

Muskego, frequently flooded

Extent: 45 percent of the unit
Landform(s): flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	

Klossner, frequently flooded

Extent: 45 percent of the unit
Landform(s): flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material over till
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	
2Cg -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	

1186--Forestcity-Lundlake, depressional, complex, 0 to 3 percent slopes

Forestcity

Extent: 75 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 0 to 3 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1 -- 0 to 22 in	fine sandy loam	moderately rapid	3.09 to 3.53 in	6.1 to 7.3
A2,AB -- 22 to 43 in	loam	moderate	2.92 to 3.55 in	6.1 to 7.3
2Btg -- 43 to 60 in	sandy clay loam	moderately rapid	1.86 to 2.88 in	5.6 to 7.3
2BCg -- 60 to 80 in	sandy loam	moderately rapid	2.01 to 3.01 in	7.4 to 7.8

Lundlake, depressional

Extent: 20 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1 -- 0 to 20 in	loam	moderate	3.41 to 4.42 in	6.6 to 7.3
A2,A3,AB -- 20 to 46 in	loam	moderate	4.42 to 5.72 in	6.6 to 7.3
Bg -- 46 to 54 in	sandy loam	moderate	1.18 to 1.50 in	6.6 to 7.8
Cg -- 54 to 60 in	sandy loam	moderately rapid	0.59 to 0.89 in	7.4 to 7.8

1196B--Lida-Two Inlets complex, 1 to 8 percent slopes

Lida

Extent: 60 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 1 to 8 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 6 in	sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
E -- 6 to 8 in	sandy loam	rapid	0.16 to 0.26 in	5.6 to 7.3
Bt -- 8 to 17 in	coarse sandy loam	moderately rapid	0.72 to 1.54 in	5.6 to 7.3
2Bt -- 17 to 25 in	gravelly loamy coarse sand	rapid	0.17 to 0.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	0.55 to 3.83 in	7.4 to 8.4

Two Inlets

Extent: 30 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 1 to 8 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy sand	rapid	0.89 to 1.08 in	6.1 to 7.3
C -- 19 to 80 in	gravelly sand	very rapid	1.22 to 2.44 in	7.4 to 8.4

1196C--Lida-Two Inlets complex, 8 to 15 percent slopes

Lida

Extent: 55 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 8 to 15 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 6 in	sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
E -- 6 to 8 in	sandy loam	rapid	0.16 to 0.26 in	5.6 to 7.3
Bt -- 8 to 17 in	coarse sandy loam	moderately rapid	0.72 to 1.54 in	5.6 to 7.3
2Bt -- 17 to 25 in	gravelly loamy coarse sand	rapid	0.17 to 0.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	0.55 to 3.83 in	7.4 to 8.4

Two Inlets

Extent: 30 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 8 to 15 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy sand	rapid	0.89 to 1.08 in	6.1 to 7.3
C -- 19 to 80 in	gravelly sand	very rapid	1.22 to 2.44 in	7.4 to 8.4

1196E--Lida-Two Inlets complex, 15 to 30 percent slopes

Lida

Extent: 50 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 15 to 30 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 6 in	sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
E -- 6 to 8 in	sandy loam	rapid	0.16 to 0.26 in	5.6 to 7.3
Bt -- 8 to 17 in	coarse sandy loam	moderately rapid	0.72 to 1.54 in	5.6 to 7.3
2Bt -- 17 to 25 in	gravelly loamy coarse sand	rapid	0.17 to 0.83 in	5.6 to 7.3
2C -- 25 to 80 in	gravelly coarse sand	very rapid	0.55 to 3.83 in	7.4 to 8.4

Two Inlets

Extent: 40 percent of the unit
Landform(s): hills on outwash plains, hills on moraines
Slope gradient: 15 to 30 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.6 to 7.3
BE,Bt -- 8 to 20 in	loamy sand	rapid	1.10 to 1.34 in	6.1 to 7.3
BC,C -- 20 to 80 in	gravelly sand	very rapid	1.20 to 2.39 in	7.4 to 8.4

1197--Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Suckercreek, occasionally flooded

Extent: 80 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 4w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 12 in	fine sandy loam	moderately rapid	2.13 to 2.83 in	7.4 to 8.4
Cg -- 12 to 80 in	fine sandy loam	moderately rapid	5.45 to 13.62 in	7.4 to 8.4

1199--Klossner and Lundlake soils, ponded, 0 to 1 percent slopes

Lundlake, ponded

Extent: 45 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .28
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1 -- 0 to 8 in	mucky loam	moderate	1.34 to 1.73 in	6.6 to 7.3
A2 -- 8 to 26 in	loam	moderate	3.08 to 3.98 in	6.6 to 7.3
A3,A4,Bkg -- 26 to 80 in	sandy loam	moderately rapid	5.39 to 8.09 in	7.4 to 7.8

Klossner, ponded

Extent: 45 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	
2Cg -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	

1203--Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes

Muskego, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	

Blue Earth, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: coprogenous earth over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .37
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 50 in	mucky silt loam	moderate	9.00 to 12.00 in	7.4 to 8.4
Cg -- 50 to 60 in	mucky silt loam	moderate	1.77 to 2.36 in	7.4 to 8.4

1203--Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes

Houghton, ponded

Extent: 30 percent of the unit
Landform(s): marshes on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 80 in	muck	moderately rapid	27.97 to 35.96 in	

1204B--Reedslake loam, 2 to 5 percent slopes

Reedslake

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 12 in	loam	moderate	2.36 to 2.60 in	5.6 to 7.3
Bt -- 12 to 26 in	clay loam	moderate	2.13 to 2.69 in	5.6 to 7.3
Bk -- 26 to 48 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 48 to 80 in	loam	moderate	4.84 to 6.13 in	7.4 to 8.4

1207B--Reedslake-Le Sueur complex, 1 to 5 percent slopes

Reedslake

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 12 in	loam	moderate	2.36 to 2.60 in	5.6 to 7.3
Bt -- 12 to 26 in	clay loam	moderate	2.13 to 2.69 in	5.6 to 7.3
Bk -- 26 to 48 in	loam	moderate	3.25 to 4.11 in	7.4 to 8.4
C -- 48 to 80 in	loam	moderate	4.84 to 6.13 in	7.4 to 8.4

Le Sueur

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 1 to 4 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 14 in	loam	moderate	2.83 to 3.40 in	5.6 to 7.3
Bt -- 14 to 40 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
Bk -- 40 to 55 in	loam	moderate	2.24 to 2.84 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

1213C--Cokato-Storden complex, 6 to 12 percent slopes, eroded

Cokato, eroded

Extent: 65 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 23 in	clay loam	moderate	2.24 to 2.84 in	5.6 to 7.3
Bk -- 23 to 48 in	loam	moderate	3.78 to 4.79 in	7.4 to 8.4
C -- 48 to 80 in	loam	moderate	4.78 to 6.06 in	7.4 to 8.4

Storden

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 55 in	loam	moderate	7.20 to 9.13 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

1213D--Cokato-Storden complex, 12 to 18 percent slopes, eroded

Cokato, eroded

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 20 in	clay loam	moderate	1.83 to 2.32 in	5.6 to 7.3
Bk -- 20 to 40 in	loam	moderate	3.01 to 3.81 in	7.4 to 8.4
C -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

Storden

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 55 in	loam	moderate	7.20 to 9.13 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

1220C--Cokato-Storden-Hawick complex, 6 to 12 percent slopes, eroded

Cokato, eroded

Extent: 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 23 in	clay loam	moderate	2.24 to 2.84 in	5.6 to 7.3
Bk -- 23 to 48 in	loam	moderate	3.78 to 4.79 in	7.4 to 8.4
C -- 48 to 80 in	loam	moderate	4.78 to 6.06 in	7.4 to 8.4

Storden

Extent: 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 55 in	loam	moderate	7.20 to 9.13 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

1220C--Cokato-Storden-Hawick complex, 6 to 12 percent slopes, eroded

Hawick

Extent: 15 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 10 in	gravelly sandy loam	rapid	0.30 to 1.28 in	6.1 to 7.8
C -- 10 to 60 in	gravelly coarse sand	very rapid	1.00 to 3.00 in	7.4 to 8.4

1223--Sandberg-Arvilla complex, map >25, 0 to 3 percent slopes

Sandberg, MAP>25

Extent: 60 percent of the unit
Landform(s): stream terraces, -- error in exists on --
Slope gradient: 1 to 3 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	loamy coarse sand	rapid	1.10 to 1.32 in	5.6 to 7.8
Bw,BC -- 11 to 35 in	gravelly coarse sand	rapid	0.72 to 2.40 in	6.1 to 7.8
C -- 35 to 80 in	gravelly coarse sand	very rapid	0.90 to 2.69 in	7.4 to 8.4

Arvilla, MAP>25

Extent: 30 percent of the unit
Landform(s): stream terraces, -- error in exists on --
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .17
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 14 in	coarse sandy loam	moderately rapid	1.84 to 2.13 in	6.1 to 7.3
Bw -- 14 to 17 in	coarse sandy loam	moderately rapid	0.30 to 0.39 in	6.1 to 7.3
2Bw,2C -- 17 to 80 in	gravelly coarse sand	rapid	1.26 to 3.15 in	7.4 to 8.4

1224--Hubbard-Verndale, acid substratum, complex, 0 to 3 percent slopes

Hubbard

Extent: 60 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 1 to 3 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	loamy coarse sand	rapid	0.88 to 1.32 in	5.1 to 7.3
Bw -- 11 to 27 in	loamy sand	rapid	0.48 to 1.13 in	5.1 to 7.3
BC,C -- 27 to 80 in	sand	rapid	1.58 to 3.69 in	5.6 to 7.8

Verndale, acid substratum

Extent: 30 percent of the unit
Landform(s): swales on stream terraces, swales on outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	coarse sandy loam	moderately rapid	1.28 to 1.67 in	5.1 to 7.3
Bt -- 10 to 16 in	coarse sandy loam	moderate	0.88 to 1.13 in	5.1 to 7.3
2Bw -- 16 to 45 in	coarse sand	rapid	1.72 to 2.30 in	5.1 to 7.3
2C -- 45 to 80 in	sand	rapid	0.70 to 2.10 in	5.1 to 7.3

1231--Hubbard-Mosford complex, 0 to 3 percent slopes

Hubbard

Extent: 60 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 1 to 3 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 20 in	loamy sand	rapid	1.61 to 2.41 in	5.1 to 7.3
Bw -- 20 to 32 in	loamy sand	rapid	0.35 to 0.83 in	5.1 to 7.3
BC,C -- 32 to 80 in	sand	rapid	1.44 to 3.36 in	5.6 to 7.8

Mosford

Extent: 30 percent of the unit
Landform(s): swales on stream terraces, swales on outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	sandy loam	moderately rapid	1.69 to 2.34 in	5.1 to 7.3
Bw -- 13 to 16 in	coarse sandy loam	moderately rapid	0.38 to 0.54 in	5.1 to 7.3
2Bw -- 16 to 35 in	coarse sand	rapid	0.57 to 2.08 in	5.1 to 7.3
2C -- 35 to 80 in	sand	rapid	0.90 to 3.14 in	5.1 to 7.8

1255--Elkriver fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Elkriver, occasionally flooded

Extent: 80 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 2w
Hydric soil: no
Hydrologic group: A/D
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.97 in	5.1 to 7.3
A1,A3 -- 10 to 26 in	fine sandy loam	moderately rapid	2.42 to 3.23 in	5.1 to 7.3
Bw -- 26 to 32 in	very fine sandy loam	moderately rapid	0.89 to 1.12 in	5.6 to 7.8
2C -- 32 to 80 in	sand	rapid	0.96 to 4.80 in	5.6 to 7.8

1256--Cantlin loamy fine sand, 0 to 3 percent slopes

Cantlin

Extent: 90 percent of the unit
Landform(s): outwash plains
Slope gradient: 0 to 3 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.1 to 6.0
Bw -- 8 to 22 in	loamy fine sand	rapid	0.85 to 1.13 in	5.1 to 6.0
BC,C -- 22 to 80 in	fine sand	rapid	2.89 to 4.05 in	5.1 to 6.5

1257--Elkriver-Mosford complex, 0 to 6 percent slopes, rarely flooded

Elkriver, rarely flooded

Extent: 55 percent of the unit
Landform(s): benches on flood plains
Slope gradient: 0 to 3 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: rare
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	fine sandy loam	moderately rapid	1.57 to 1.97 in	5.1 to 7.3
A1,A3 -- 10 to 35 in	fine sandy loam	moderately rapid	3.78 to 5.04 in	5.1 to 7.3
Bw -- 35 to 39 in	fine sandy loam	moderately rapid	0.59 to 0.75 in	5.6 to 7.8
2C -- 39 to 80 in	sand	rapid	0.82 to 4.09 in	5.6 to 7.8

Mosford, rarely flooded

Extent: 35 percent of the unit
Landform(s): rises on benches on flood plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: rare
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	fine sandy loam	moderately rapid	1.43 to 1.98 in	5.1 to 7.3
Bw -- 11 to 16 in	fine sandy loam	moderately rapid	0.61 to 0.87 in	5.1 to 7.3
2Bw -- 16 to 25 in	fine sand	rapid	0.27 to 1.00 in	5.1 to 7.3
2C -- 25 to 80 in	sand	rapid	1.09 to 3.83 in	5.1 to 7.8

1260B--Stonelake-Nebish, moderately wet, complex, 2 to 6 percent slopes

Stonelake

Extent: 55 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .17
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loamy coarse sand	very rapid	0.79 to 0.94 in	5.1 to 6.5
Bt -- 8 to 30 in	very gravelly loamy coarse sand	very rapid	0.66 to 1.76 in	5.1 to 6.5
BC,C -- 30 to 80 in	gravelly sand	very rapid	1.00 to 2.50 in	5.1 to 7.4

Nebish, moderately wet

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 6 in	fine sandy loam	moderately rapid	0.77 to 1.06 in	5.6 to 7.3
E -- 6 to 9 in	fine sandy loam	moderately rapid	0.35 to 0.60 in	5.6 to 7.3
Bt -- 9 to 43 in	clay loam	moderate	5.08 to 6.43 in	5.6 to 7.3
Bk -- 43 to 80 in	loam	moderate	4.07 to 7.03 in	7.4 to 7.8

1260C--Stonelake-Nebish complex, 6 to 12 percent slopes

Stonelake

Extent: 55 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 4
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .24
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	loamy sand	very rapid	0.71 to 0.85 in	5.1 to 6.5
E -- 7 to 20 in	loamy coarse sand	very rapid	0.39 to 0.52 in	5.1 to 6.5
Bt -- 20 to 42 in	very gravelly coarse sand	very rapid	0.66 to 1.76 in	5.1 to 6.5
C -- 42 to 80 in	very gravelly coarse sand	very rapid	0.76 to 1.89 in	5.1 to 7.8

Nebish

Extent: 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 3 in	fine sandy loam	moderately rapid	0.41 to 0.57 in	5.6 to 7.3
E -- 3 to 10 in	fine sandy loam	moderately rapid	0.74 to 1.27 in	5.6 to 7.3
Bt -- 10 to 29 in	clay loam	moderate	2.89 to 3.67 in	5.6 to 7.3
Bk -- 29 to 80 in	loam	moderate	5.59 to 9.65 in	7.4 to 7.8

1260E--Stonelake-Nebish complex, 12 to 25 percent slopes

Stonelake

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 25 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .10
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 5 in	gravelly coarse sandy loam	rapid	0.31 to 0.77 in	5.1 to 6.5
Bw -- 5 to 11 in	very gravelly coarse sand	very rapid	0.18 to 0.24 in	5.1 to 6.5
Bt -- 11 to 20 in	very gravelly coarse sand	very rapid	0.27 to 0.72 in	5.1 to 6.5
BC,C -- 20 to 80 in	very gravelly coarse sand	very rapid	1.20 to 2.99 in	5.1 to 7.8

Nebish

Extent: 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 25 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated: 6e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 5 in	fine sandy loam	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
EB -- 5 to 9 in	fine sandy loam	moderately rapid	0.43 to 0.75 in	5.6 to 7.3
Bt -- 9 to 27 in	clay loam	moderate	2.72 to 3.44 in	5.6 to 7.3
Bk -- 27 to 80 in	loam	moderate	5.80 to 10.02 in	7.4 to 7.8

1288--Seelyeville and Markey soils, ponded, 0 to 1 percent slopes

Seelyeville, ponded

Extent: 45 percent of the unit
Landform(s): marshes on outwash plains, marshes on stream terraces
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained
Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 15 in	muck	moderately rapid	5.24 to 6.73 in	
Oa2,Oa3 -- 15 to 80 in	muck	moderately rapid	22.74 to 29.23 in	

Markey, ponded

Extent: 45 percent of the unit
Landform(s): marshes on outwash plains, marshes on stream terraces
Slope gradient: 0 to 1 percent
Parent material: organic material over outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained
Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 27 in	muck	moderately rapid	9.51 to 12.22 in	
A -- 27 to 32 in	loamy sand	rapid	0.14 to 0.38 in	
Cg -- 32 to 80 in	sand	rapid	1.44 to 3.84 in	

1356--Water, miscellaneous

Water, miscellaneous

Extent: 100 percent of the unit
Landform(s):
Slope gradient:
Parent material:
Restrictive feature(s): greater than 60 inches
Flooding:
Ponding:
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated:
Hydric soil:
Hydrologic group:
Potential for frost action:

Representative soil profile:

Texture	Permeability	Available water capacity	pH

1362B--Angus loam, 2 to 5 percent slopes

Angus

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt --	8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
BC --	35 to 40 in	clay loam	moderate	0.72 to 0.97 in	6.1 to 7.8
C --	40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

1368--Southhaven loam, 0 to 2 percent slopes

Southhaven

Extent: 90 percent of the unit
Landform(s): outwash plains
Slope gradient: 0 to 2 percent
Parent material: colluvium over outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .28
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A3 -- 0 to 48 in	loam	moderate	7.20 to 10.57 in	5.1 to 7.3
Bw -- 48 to 62 in	loam	moderate	1.65 to 2.62 in	5.1 to 7.3
2Bw -- 62 to 66 in	loamy sand	rapid	0.04 to 0.48 in	5.1 to 7.3
2C -- 66 to 80 in	gravelly sand	rapid	0.28 to 0.96 in	5.6 to 7.8

1377B--Dorset-Two Inlets complex, 2 to 6 percent slopes

Dorset

Extent: 70 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt -- 11 to 19 in	sandy loam	moderately rapid	0.94 to 1.50 in	5.6 to 7.3
2BC -- 19 to 32 in	gravelly loamy sand	rapid	0.78 to 1.30 in	6.6 to 8.4
2C -- 32 to 80 in	gravelly coarse sand	rapid	0.96 to 1.92 in	7.4 to 8.4

Two Inlets

Extent: 20 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy sand	rapid	0.89 to 1.08 in	6.1 to 7.3
C -- 19 to 80 in	gravelly sand	very rapid	1.22 to 2.44 in	7.4 to 8.4

1377C--Dorset-Two Inlets complex, 6 to 12 percent slopes

Dorset

Extent: 50 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.65 in	5.6 to 7.3
Bt -- 11 to 19 in	sandy loam	moderately rapid	0.94 to 1.50 in	5.6 to 7.3
2BC -- 19 to 32 in	gravelly loamy sand	rapid	0.78 to 1.30 in	6.6 to 8.4
2C -- 32 to 80 in	gravelly coarse sand	rapid	0.96 to 1.92 in	7.4 to 8.4

Two Inlets

Extent: 35 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy sand	rapid	0.89 to 1.08 in	6.1 to 7.3
C -- 19 to 80 in	gravelly sand	very rapid	1.22 to 2.44 in	7.4 to 8.4

1377D--Dorset-Two Inlets complex, 12 to 20 percent slopes

Dorset

Extent: 45 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 12 to 20 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	5.6 to 7.3
Bt -- 9 to 14 in	sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2Bt,2BC -- 14 to 25 in	gravelly loamy sand	rapid	0.66 to 1.10 in	6.6 to 8.4
2C -- 25 to 80 in	gravelly sand	rapid	1.09 to 2.19 in	7.4 to 8.4

Two Inlets

Extent: 40 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 12 to 20 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loamy sand	rapid	0.91 to 1.09 in	5.6 to 7.3
Bt -- 9 to 19 in	gravelly loamy sand	rapid	0.89 to 1.08 in	6.1 to 7.3
C -- 19 to 80 in	gravelly sand	very rapid	1.22 to 2.44 in	7.4 to 8.4

1377E--Dorset-Two Inlets complex, 20 to 35 percent slopes

Dorset

Extent: 45 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 20 to 35 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	5.6 to 7.3
Bt -- 9 to 14 in	coarse sandy loam	moderately rapid	0.61 to 0.97 in	5.6 to 7.3
2BC -- 14 to 27 in	loamy sand	rapid	0.78 to 1.30 in	6.6 to 8.4
2C -- 27 to 80 in	gravelly sand	rapid	1.06 to 2.11 in	7.4 to 8.4

Two Inlets

Extent: 45 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 20 to 35 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .15
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 8 in	loamy sand	rapid	0.79 to 0.94 in	5.6 to 7.3
BE,Bt -- 8 to 20 in	loamy sand	rapid	1.10 to 1.34 in	6.1 to 7.3
BC,C -- 20 to 80 in	gravelly sand	very rapid	1.20 to 2.39 in	7.4 to 8.4

1378--Fordum loam, 0 to 2 percent slopes, occasionally flooded

Fordum, occasionally flooded

Extent: 85 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 4w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loam	moderate	1.54 to 2.17 in	5.1 to 7.3
Cg -- 9 to 38 in	loam	moderate	2.91 to 6.41 in	5.1 to 7.3
2Cg -- 38 to 80 in	stratified sand to silt loam	rapid	1.67 to 6.68 in	5.6 to 7.3

1379B--Dorset-Almora complex, 1 to 4 percent slopes

Dorset

Extent: 65 percent of the unit
Landform(s): hills on stream terraces, hills on outwash plains
Slope gradient: 1 to 4 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	loam	moderately rapid	1.63 to 1.99 in	5.6 to 7.3
Bt -- 9 to 21 in	loam	moderately rapid	1.42 to 2.24 in	5.6 to 7.3
2Bt -- 21 to 26 in	gravelly loamy sand	rapid	0.31 to 0.51 in	6.6 to 8.4
2C -- 26 to 80 in	gravelly sand	rapid	1.08 to 2.16 in	7.4 to 8.4

Almora

Extent: 25 percent of the unit
Landform(s): flats on outwash plains, flats on stream terraces
Slope gradient: 1 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 2s
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	loam	moderate	1.97 to 2.17 in	5.6 to 7.3
BE -- 10 to 14 in	fine sandy loam	moderate	0.52 to 0.82 in	5.6 to 7.3
Bt -- 14 to 36 in	loam	moderate	3.03 to 4.11 in	5.6 to 7.3
2Bt -- 36 to 41 in	loamy sand	rapid	0.10 to 0.56 in	5.6 to 7.8
2C -- 41 to 80 in	gravelly coarse sand	rapid	0.78 to 2.73 in	7.4 to 8.4

1380A--Bygland silt loam, map >25, 0 to 2 percent slopes

Bygland, MAP>25

Extent: 85 percent of the unit
Landform(s): lake plains
Slope gradient: 0 to 2 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .43
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	6.1 to 7.3
Bt -- 9 to 23 in	silty clay	moderately slow	1.38 to 2.62 in	6.1 to 7.8
BC -- 23 to 27 in	silt loam	moderately slow	0.69 to 0.95 in	7.4 to 8.4
C -- 27 to 80 in	stratified silt loam to silty clay loam	moderately slow	8.44 to 11.61 in	7.4 to 8.4

1380B--Bygland silt loam, map >25, 2 to 6 percent slopes

Bygland, MAP>25

Extent: 70 percent of the unit
Landform(s): hills on lake plains
Slope gradient: 2 to 6 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .43
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 9 in	silt loam	moderate	1.99 to 2.17 in	6.1 to 7.3
Bt -- 9 to 23 in	silty clay	moderately slow	1.38 to 2.62 in	6.1 to 7.8
BC -- 23 to 27 in	silt loam	moderately slow	0.69 to 0.95 in	7.4 to 8.4
C -- 27 to 80 in	stratified silt loam to silty clay loam	moderately slow	8.44 to 11.61 in	7.4 to 8.4

1380C--Bygland silt loam, map >25, 6 to 12 percent slopes, eroded

Bygland, MAP>25

Extent: 70 percent of the unit
Landform(s): hills on lake plains
Slope gradient: 6 to 12 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .43
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	silt loam	moderate	1.56 to 1.70 in	6.1 to 7.3
Bt -- 7 to 20 in	silty clay	moderately slow	1.30 to 2.47 in	6.1 to 7.8
BC -- 20 to 26 in	silt loam	moderately slow	0.94 to 1.30 in	7.4 to 8.4
C -- 26 to 80 in	stratified silt loam to silty clay loam	moderately slow	8.63 to 11.87 in	7.4 to 8.4

1381--Lindaas silt loam, morainic, 0 to 2 percent slopes

Lindaas, morainic

Extent: 80 percent of the unit
Landform(s): flats on lake plains, swales on lake plains
Slope gradient: 0 to 2 percent
Parent material: glaciolacustrine sediments
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .37
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 16 in	silt loam	moderate	2.91 to 3.71 in	6.6 to 7.3
Btg -- 16 to 32 in	silty clay	slow	1.57 to 2.20 in	6.6 to 7.3
Cg -- 32 to 80 in	silty clay loam	moderately slow	5.28 to 7.20 in	7.4 to 8.4

1383A--Shorewood silty clay loam, moderately wet, 0 to 3 percent slopes

Shorewood, moderately wet

Extent: 95 percent of the unit
Landform(s): lake plains, moraines
Slope gradient: 0 to 3 percent
Parent material: lacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2w
Hydric soil: no
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A,AB -- 0 to 17 in	silty clay loam	moderately slow	3.05 to 3.72 in	5.6 to 7.3
Bt -- 17 to 39 in	silty clay	moderately slow	2.87 to 3.53 in	5.1 to 7.3
2BCg,2Cg -- 39 to 60 in	loam	moderate	3.13 to 3.96 in	7.4 to 8.4

1388B--Terril loam, moderately wet, 2 to 6 percent slopes

Terril, moderately wet

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1 -- 0 to 27 in	loam	moderate	5.43 to 5.98 in	6.1 to 7.3
A2,BA -- 27 to 40 in	loam	moderate	2.21 to 2.47 in	6.1 to 7.3
Bw -- 40 to 63 in	loam	moderate	3.65 to 4.11 in	6.1 to 7.3
C -- 63 to 80 in	loam	moderate	2.54 to 3.22 in	7.4 to 8.4

1406--Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes

Medo, ponded

Extent: 30 percent of the unit
Landform(s): marshes on outwash plains, marshes on stream terraces
Slope gradient: 0 to 1 percent
Parent material: organic material over outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 20 in	muck	moderately rapid	7.03 to 9.04 in	
2A -- 20 to 34 in	loam	moderately rapid	1.79 to 2.76 in	
2AC,2Cg -- 34 to 60 in	sand	rapid	0.78 to 2.60 in	

Dassel, ponded

Extent: 30 percent of the unit
Landform(s): outwash plains, marshes on stream terraces
Slope gradient: 0 to 1 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .20
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1,A3 -- 0 to 23 in	fine sandy loam	moderately rapid	3.65 to 4.57 in	5.6 to 7.3
Bg -- 23 to 31 in	stratified loamy fine sand to fine sandy loam	moderately rapid	0.99 to 1.41 in	5.6 to 7.3
2Cg -- 31 to 60 in	stratified coarse sand to loamy sand	rapid	0.57 to 2.30 in	6.1 to 7.8

1406--Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes

Biscay, ponded

Extent: 30 percent of the unit
Landform(s): marshes on outwash plains, marshes on stream terraces
Slope gradient: 0 to 1 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained
Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .28
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A1,AB -- 0 to 24 in	loam	moderate	4.80 to 5.28 in	6.1 to 7.8
Bg -- 24 to 29 in	loam	moderate	0.87 to 0.97 in	6.6 to 7.8
2BCg,2Cg -- 29 to 60 in	stratified gravelly coarse sand to loamy sand	very rapid	0.61 to 1.23 in	7.4 to 8.4

1408B--Angus-Kilkenny complex, 2 to 6 percent slopes

Angus

Extent: 45 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
BC -- 35 to 40 in	clay loam	moderate	0.72 to 0.97 in	6.1 to 7.8
C -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

Kilkenny

Extent: 40 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: glaciofluvial sediments and reworked till over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: C
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	clay loam	moderately slow	1.87 to 2.09 in	5.6 to 7.3
Bt -- 11 to 35 in	clay loam	moderately slow	3.60 to 4.56 in	5.1 to 7.3
2Bk,2C -- 35 to 80 in	loam	moderate	6.73 to 8.53 in	7.4 to 8.4

1438B--Braham loamy fine sand, moderately wet, 2 to 5 percent slopes

Braham, moderately wet

Extent: 85 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: outwash over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .28
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.6 to 7.3
E -- 8 to 24 in	loamy fine sand	rapid	1.29 to 1.61 in	5.6 to 7.3
2Bt -- 24 to 42 in	sandy clay loam	moderate	2.72 to 3.26 in	5.1 to 7.3
2Bk -- 42 to 60 in	loam	moderate	2.66 to 3.19 in	7.4 to 8.4

1443--Belleville sandy loam, 0 to 2 percent slopes

Belleville

Extent: 85 percent of the unit
Landform(s): beaches on moraines
Slope gradient: 0 to 2 percent
Parent material: glaciolacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .17
Land capability, nonirrigated: 5w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 11 in	sandy loam	moderately rapid	1.43 to 1.98 in	6.1 to 7.3
Bg -- 11 to 27 in	loamy sand	rapid	0.65 to 1.94 in	6.1 to 7.3
2Bg -- 27 to 48 in	loam	moderately slow	2.50 to 4.17 in	6.1 to 7.3
2Cg -- 48 to 80 in	loam	moderate	4.78 to 6.06 in	7.4 to 8.4

1901B--Angus-Le Sueur complex, 1 to 5 percent slopes

Angus

Extent: 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 5 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 35 in	clay loam	moderate	4.07 to 5.16 in	5.1 to 7.3
BC -- 35 to 40 in	clay loam	moderate	0.72 to 0.97 in	6.1 to 7.8
C -- 40 to 80 in	loam	moderate	5.96 to 7.56 in	7.4 to 8.4

Le Sueur

Extent: 30 percent of the unit
Landform(s): moraines
Slope gradient: 1 to 4 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,AB -- 0 to 14 in	loam	moderate	2.83 to 3.40 in	5.6 to 7.3
Bt -- 14 to 40 in	clay loam	moderate	3.90 to 4.94 in	5.1 to 7.3
Bk -- 40 to 55 in	loam	moderate	2.24 to 2.84 in	7.4 to 8.4
C -- 55 to 80 in	loam	moderate	3.72 to 4.71 in	7.4 to 8.4

1931--Essexville sandy loam, 0 to 2 percent slopes

Essexville

Extent: 75 percent of the unit
Landform(s): beaches on moraines
Slope gradient: 0 to 2 percent
Parent material: glaciolacustrine sediments over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .17
Land capability, nonirrigated: 5w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 15 in	sandy loam	moderately rapid	1.94 to 2.69 in	7.4 to 8.4
Bg -- 15 to 30 in	sand	rapid	0.60 to 1.80 in	7.4 to 8.4
2Cg -- 30 to 80 in	loam	moderate	7.50 to 9.50 in	7.4 to 8.4

1942--Forada mucky loam, depressional, 0 to 1 percent slopes

Forada, depressional

Extent: 85 percent of the unit
Landform(s): depressions on outwash plains, depressions on stream terraces
Slope gradient: 0 to 1 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .32
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 10 in	mucky loam	moderate	1.97 to 2.17 in	6.1 to 7.3
Bg -- 10 to 21 in	sandy loam	moderately rapid	1.32 to 2.09 in	6.1 to 7.8
2BCg,2Cg -- 21 to 60 in	gravelly coarse sand	rapid	0.78 to 3.90 in	6.6 to 8.4

1946--Fordum-Winterfield complex, 0 to 2 percent slopes, frequently flooded

Fordum, frequently flooded

Extent: 70 percent of the unit
Landform(s): alluvial flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: very poorly drained

Soil loss tolerance (T factor): 3
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 7 in	fine sandy loam	moderately rapid	0.78 to 1.28 in	5.1 to 7.3
Cg -- 7 to 28 in	sandy loam	moderately rapid	2.09 to 4.59 in	5.1 to 7.3
2Cg -- 28 to 80 in	sand	rapid	2.08 to 5.20 in	5.6 to 7.3

Winterfield, frequently flooded

Extent: 20 percent of the unit
Landform(s): rises on flood plains
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .20
Land capability, nonirrigated: 4w
Hydric soil: no
Hydrologic group: A/D
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 8 in	loamy fine sand	rapid	0.79 to 0.94 in	5.6 to 7.3
C1,C2 -- 8 to 20 in	sand	rapid	0.73 to 1.34 in	5.6 to 7.3
C3,C5 -- 20 to 80 in	sand	rapid	2.39 to 5.98 in	5.6 to 7.3

1975--Oylen sandy loam, 0 to 2 percent slopes

Oylen

Extent: 90 percent of the unit
Landform(s): stream terraces, outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3s
Hydric soil: no
Hydrologic group: C
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderately rapid	1.18 to 1.57 in	6.1 to 7.3
Bt -- 10 to 18 in	sandy loam	moderate	0.99 to 1.49 in	6.1 to 7.3
2Bw -- 18 to 38 in	sand	rapid	0.60 to 1.61 in	6.1 to 7.3
2C -- 38 to 80 in	gravelly coarse sand	rapid	1.25 to 2.92 in	6.6 to 8.4

L307B--Koronis loam, 2 to 6 percent slopes

Koronis

Extent: 70 to 90 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .28
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk -- 31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C -- 43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

L307C2--Koronis loam, 6 to 12 percent slopes, moderately eroded

Koronis, moderately eroded

Extent: 65 to 80 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .28
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderately rapid	1.57 to 1.73 in	5.6 to 7.3
Bt -- 8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk -- 31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C -- 43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

L317A--Barry loam, 0 to 2 percent slopes

Barry

Extent: 75 to 90 percent of the unit
Landform(s): swales on moraines
Slope gradient: 0 to 2 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .24
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 11 in	loam	moderately rapid	1.87 to 2.09 in	6.1 to 7.3
Btg -- 11 to 33 in	sandy clay loam	moderate	3.31 to 3.97 in	6.1 to 7.3
Bkg -- 33 to 60 in	sandy loam	moderately rapid	2.94 to 3.75 in	7.4 to 7.8
Cg -- 60 to 80 in	sandy loam	moderately rapid	2.21 to 3.21 in	7.4 to 8.4

L318A--Lundlake silty clay loam, 0 to 1 percent slopes

Lundlake

Extent: 80 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .24
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1,A2 -- 0 to 28 in	silty clay loam	moderate	4.75 to 6.15 in	5.6 to 7.3
AB -- 28 to 36 in	loam	moderate	1.34 to 1.73 in	6.6 to 7.3
2Bg1,2Bg2 -- 36 to 72 in	sandy loam	moderately rapid	3.62 to 5.43 in	6.6 to 7.8
2Cg -- 72 to 80 in	sandy loam	moderately rapid	0.79 to 1.18 in	7.4 to 7.8

L320A--Muskego and Klossner soils, lundlake catena, 0 to 1 percent slopes, frequently flooded

Muskego, frequently flooded

Extent: 30 to 100 percent of the unit
Landform(s): flats on flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:			*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1	--	0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2	--	9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco	--	36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	7.4 to 8.4

Klossner, frequently flooded

Extent: 30 to 100 percent of the unit
Landform(s): flood plains
Slope gradient: 0 to 1 percent
Parent material: organic material over loamy glaciofluvial deposits
Restrictive feature(s): greater than 60 inches
Flooding: frequent
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:			*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa	--	0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1	--	26 to 33 in	silt loam	moderate	1.56 to 1.84 in	6.1 to 7.4
2A2	--	33 to 40 in	loam	moderate	1.28 to 1.56 in	6.1 to 7.4
2Cg	--	40 to 80 in	sandy loam	moderately rapid	3.98 to 5.96 in	7.4 to 7.8

L324A--Forestcity, overwash-Forestcity complex, 1 to 4 percent slopes

Forestcity, overwash

Extent: 35 to 55 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 2 to 4 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 2w
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1 -- 0 to 36 in	fine sandy loam	moderately rapid	5.02 to 5.73 in	6.1 to 7.3
A2,AB -- 36 to 43 in	loam	moderate	0.99 to 1.20 in	6.1 to 7.3
2Btg -- 43 to 60 in	loam	moderately rapid	1.86 to 2.88 in	5.6 to 7.3
2BCg -- 60 to 80 in	fine sandy loam	moderately rapid	2.01 to 3.01 in	7.4 to 7.8

Forestcity

Extent: 30 to 50 percent of the unit
Landform(s): drainageways on moraines
Slope gradient: 1 to 3 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated: 2w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A1 -- 0 to 36 in	fine sandy loam	moderately rapid	5.02 to 5.73 in	6.1 to 7.3
A2,AB -- 36 to 43 in	loam	moderate	0.99 to 1.20 in	6.1 to 7.3
2Btg -- 43 to 60 in	loam	moderately rapid	1.86 to 2.88 in	5.6 to 7.3
2BCg -- 60 to 80 in	fine sandy loam	moderately rapid	2.01 to 3.01 in	7.4 to 7.8

L330A--Muskego, Blue Earth and Houghton soils, lundlake catena, 0 to 1 percent slopes, ponded

Muskego, ponded

Extent: 0 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	7.4 to 8.4

Blue Earth, ponded

Extent: 0 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: coprogenous earth over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .28
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 50 in	silt loam	moderate	9.00 to 12.00 in	7.4 to 8.4
Cg -- 50 to 60 in	silt loam	moderate	1.77 to 2.36 in	7.4 to 8.4

L330A--Muskego, Blue Earth and Houghton soils, lundlake catena, 0 to 1 percent slopes, ponded

Houghton, ponded

Extent: 0 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 80 in	muck	moderately rapid	27.97 to 35.96 in	

L331A--Klossner muck, lundlake catena, 0 to 1 percent slopes

Klossner, drained, lundlake catena

Extent: 65 to 85 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over loamy deposits
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Op,Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 36 in	mucky silty clay loam	moderate	2.17 to 2.56 in	6.1 to 7.4
2A2 -- 36 to 48 in	silty clay loam	moderate	2.20 to 2.69 in	6.1 to 7.4
2Cg -- 48 to 80 in	sandy loam	moderately rapid	3.19 to 4.78 in	7.4 to 7.8

L334A--Houghton and Muskego soils, lundlake catena, 0 to 1 percent slopes

Houghton, surface drained

Extent: 20 to 60 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 80 in	muck	moderately rapid	27.97 to 35.96 in	

Muskego, surface drained

Extent: 20 to 60 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over coprogenous earth
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: C/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa1 -- 0 to 9 in	muck	moderately rapid	3.17 to 4.07 in	
Oa2 -- 9 to 36 in	muck	moderately rapid	9.37 to 12.05 in	
Lco -- 36 to 60 in	coprogenous earth	slow	4.32 to 5.76 in	7.4 to 8.4

L335A--Klossner soils, lundlake catena, 0 to 1 percent slopes

Klossner, surface drained, lundlake catena

Extent: 50 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over loamy deposits
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 6w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	6.1 to 7.4
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	6.1 to 7.4
2Cg -- 40 to 80 in	sandy loam	moderately rapid	3.98 to 5.96 in	7.4 to 7.8

Klossner, drained, lundlake catena

Extent: 0 to 40 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over loamy deposits
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Op -- 0 to 10 in	muck	moderately rapid	3.44 to 4.72 in	
Oa -- 10 to 26 in	muck	moderately rapid	5.65 to 7.75 in	
2A1 -- 26 to 36 in	mucky silty clay loam	moderate	2.17 to 2.56 in	6.1 to 7.4
2A2 -- 36 to 48 in	silty clay loam	moderate	2.20 to 2.69 in	6.1 to 7.4
2Cg -- 48 to 80 in	sandy loam	moderately rapid	3.19 to 4.78 in	7.4 to 7.8

L347A--Klossner and Lundlake soils, 0 to 1 percent slopes, ponded

Klossner, lundlake catena, ponded

Extent: 0 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material over loamy deposits
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 1
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .02
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oa -- 0 to 26 in	muck	moderately rapid	9.09 to 12.47 in	
2A1 -- 26 to 33 in	silt loam	moderate	1.56 to 1.84 in	6.1 to 7.4
2A2 -- 33 to 40 in	loam	moderate	1.28 to 1.56 in	6.1 to 7.4
2Cg -- 40 to 80 in	sandy loam	moderately rapid	3.98 to 5.96 in	7.4 to 7.8

Lundlake, ponded

Extent: 0 to 100 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: colluvium over till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 8
Wind erodibility index (WEI): 0
Kw factor (surface layer) .24
Land capability, nonirrigated: 8w
Hydric soil: yes
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 26 in	mucky loam	moderate	4.42 to 5.72 in	6.6 to 7.3
Bg -- 26 to 56 in	loam	moderate	5.09 to 6.58 in	6.6 to 7.3
Bk -- 56 to 60 in	sandy loam	moderately rapid	0.39 to 0.59 in	6.6 to 7.8

L350A--Marcellon loam, 0 to 3 percent slopes

Marcellon

Extent: 75 to 95 percent of the unit
Landform(s): rises on moraines
Slope gradient: 0 to 3 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .24
Land capability, nonirrigated: 1
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap,A -- 0 to 13 in	loam	moderate	2.21 to 3.12 in	5.6 to 7.3
Bt -- 13 to 32 in	loam	moderate	2.27 to 3.40 in	5.6 to 7.3
Bk -- 32 to 80 in	sandy loam	moderately rapid	3.36 to 6.72 in	7.4 to 8.4

L351A--Houghton muck, lundlake catena, 0 to 1 percent slopes

Houghton, drained

Extent: 65 to 85 percent of the unit
Landform(s): depressions on moraines
Slope gradient: 0 to 1 percent
Parent material: organic material
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: frequent
Drainage class: very poorly drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .02
Land capability, nonirrigated: 3w
Hydric soil: yes
Hydrologic group: A/D
Potential for frost action: high

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Oap -- 0 to 10 in	muck	moderately rapid	3.44 to 4.43 in	
Oa -- 10 to 80 in	muck	moderately rapid	24.53 to 31.54 in	

L355B--Koronis-Sunburg-Hawick complex, 2 to 6 percent slopes

Koronis

Extent: 40 to 60 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
Bt -- 8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk -- 31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C -- 43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

Sunburg

Extent: 15 to 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 4 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 10 in	sandy loam	moderate	1.97 to 2.17 in	6.6 to 8.4
C -- 10 to 60 in	fine sandy loam	moderately rapid	5.50 to 8.00 in	7.4 to 8.4

L355B--Koronis-Sunburg-Hawick complex, 2 to 6 percent slopes

Hawick

Extent: 10 to 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	sandy loam	rapid	0.21 to 0.92 in	6.1 to 7.8
Bw,C -- 7 to 80 in	gravelly coarse sand	very rapid	1.46 to 4.37 in	7.4 to 8.4

L355C2--Koronis-Sunburg-Hawick complex, 6 to 12 percent slopes, moderately eroded

Koronis, moderately eroded

Extent: 35 to 55 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 8 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
Bt --	8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk --	31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C --	43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

Sunburg, moderately eroded

Extent: 20 to 30 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 10 in	sandy loam	moderate	1.97 to 2.17 in	6.6 to 8.4
C --	10 to 60 in	fine sandy loam	moderately rapid	5.50 to 8.00 in	7.4 to 8.4

L355C2--Koronis-Sunburg-Hawick complex, 6 to 12 percent slopes, moderately eroded

Hawick

Extent: 10 to 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .10
Land capability, nonirrigated: 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 7 in	gravelly sandy loam	rapid	0.21 to 0.92 in	6.1 to 7.8
Bw,C -- 7 to 80 in	gravelly coarse sand	very rapid	1.46 to 4.37 in	7.4 to 8.4

L355D2--Koronis-Sunburg-Hawick complex, 12 to 18 percent slopes, moderately eroded

Koronis, moderately eroded

Extent: 30 to 50 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 8 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
Bt --	8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk --	31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C --	43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

Sunburg, moderately eroded

Extent: 20 to 40 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 7 in	sandy loam	moderate	1.42 to 1.56 in	6.6 to 8.4
C --	7 to 60 in	fine sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

L355D2--Koronis-Sunburg-Hawick complex, 12 to 18 percent slopes, moderately eroded

Hawick

Extent: 10 to 20 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .17
Land capability, nonirrigated: 6s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:

		Texture	Permeability	Available water capacity	pH
Ap --	0 to 7 in	gravelly sandy loam	rapid	0.21 to 0.92 in	6.1 to 7.8
Bw --	7 to 20 in	gravelly loamy coarse sand	rapid	0.39 to 1.30 in	6.1 to 7.8
Bk --	20 to 60 in	gravelly coarse sand	very rapid	0.80 to 2.39 in	7.4 to 8.4

L355E--Koronis-Sunburg-Hawick complex, 18 to 40 percent slopes

Koronis

Extent: 30 to 70 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 6e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 5 in	fine sandy loam	moderately rapid	0.67 to 0.92 in	5.6 to 7.3
Bt -- 5 to 21 in	fine sandy loam	moderately rapid	2.36 to 2.99 in	5.6 to 7.3
Bk -- 21 to 60 in	fine sandy loam	moderately rapid	4.29 to 6.24 in	7.4 to 8.4

Sunburg

Extent: 15 to 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 7e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 7 in	fine sandy loam	moderate	1.42 to 1.56 in	6.6 to 8.4
C -- 7 to 60 in	fine sandy loam	moderately rapid	5.80 to 8.44 in	7.4 to 8.4

L355E--Koronis-Sunburg-Hawick complex, 18 to 40 percent slopes

Hawick

Extent: 10 to 25 percent of the unit
Landform(s): hills on moraines
Slope gradient: 18 to 40 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 2
Wind erodibility index (WEI): 134
Kw factor (surface layer) .17
Land capability, nonirrigated: 7s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
A -- 0 to 14 in	gravelly loamy sand	rapid	0.43 to 1.84 in	6.1 to 7.8
Bk -- 14 to 60 in	gravelly coarse sand	rapid	1.37 to 4.57 in	6.1 to 7.8

L357D2--Koronis-Sunburg complex, 12 to 18 percent slopes, moderately eroded

Koronis, moderately eroded

Extent: 55 to 75 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	sandy loam	moderately rapid	1.02 to 1.42 in	5.6 to 7.3
Bt -- 8 to 31 in	sandy clay loam	moderately rapid	3.48 to 4.41 in	5.6 to 7.3
Bk -- 31 to 43 in	fine sandy loam	moderately rapid	1.30 to 2.24 in	7.4 to 8.4
C -- 43 to 80 in	fine sandy loam	moderately rapid	4.07 to 5.92 in	7.4 to 8.4

Sunburg, moderately eroded

Extent: 15 to 35 percent of the unit
Landform(s): hills on moraines
Slope gradient: 12 to 18 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .24
Land capability, nonirrigated: 4e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

Representative soil profile:	*Texture*	*Permeability*	*Available water capacity*	*pH*
Ap -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	6.6 to 8.4
Bk -- 8 to 20 in	fine sandy loam	moderately rapid	1.34 to 2.32 in	7.4 to 8.4
C -- 20 to 80 in	fine sandy loam	moderately rapid	6.58 to 9.57 in	7.4 to 8.4

Map Unit Description (MN)

Wright County, Minnesota

W--Water

Water

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated:

Hydric soil:

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture	*Permeability*	*Available water capacity*	*pH*

This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.